

NOV 20 2006

DOCKET NO. 01-HK-048 (STMI01-01048)
SERIAL NO. 10/036,809
PATENT**REMARKS**

Claims 1-20 were pending in this application and were each rejected. Reconsideration and full allowance of Claims 1-20 are respectfully requested.

I. REJECTION UNDER 35 U.S.C. § 103

The Office Action rejects Claims 1-20 under 35 U.S.C. § 103(a) as being unpatentable over *Krishna et al.* (U.S. Patent No. 6,563,837, hereinafter "Krishna"). The Applicant respectfully traverses this rejection.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. (*MPEP* § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992)). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. (*MPEP* § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984)). Only when a *prima facie* case of obviousness is established does the burden shift to the Applicant to produce evidence of nonobviousness. (*MPEP* § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993)). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the Applicant is entitled to grant of a patent. (*In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985)).

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A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. (*In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993)). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on the Applicant's disclosure. (MPEP § 2142).

Independent Claims 1, 4, 7, and 14 include some similar features. For example, these claims recite receiving or storing "incoming fixed-size data packets" at a "first data rate" at or in "N input buffers" and outputting the "fixed-size data packets" at a "second data rate equal to at least twice" the first data rate. These claims also recite receiving or transferring "fixed-size data packets" at the "second data rate" at or to "N output buffers" and outputting the fixed-size data packets at the "first data rate." As currently claimed, the input buffers receive at a first data rate, and the output buffers output at that same data rate. This limitation is not taught or suggested by the art of record.

For example, Krishna, in col. 8, lines 34-48, indicates that the packets may arrive on "input data links" at a certain data rate and that the switch fabric can have a different data rate. Krishna also describes, in col. 8, lines 1-15, that the output data links "unload" at some rate but does not specify the rate (whether it could be the same as the input data rate). In another

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location, Krishna includes an odd quoted statement about the "capacity" of the input and output links but does not appear to indicate that this has anything to do with a data rate.

The Examiner makes a statement that "it is known in the art that packets are input and output at the same data rate. This is would have been obvious to one skilled in the art to realize the output data links output packets at the first data rate, since packets are input and output at the same data rate." The Examiner cites no basis at all for this broad statement.

While surely it is true that in some contexts that "packets are input and output at the same data rate," for example on a single direct transmission line, there is no teaching or suggestion in the art of record that this is true, applicable, or even possible in the claimed context, particularly where there is interposed between the input and output a bufferless, non-blocking interconnecting network capable of receiving from said N input buffers said fixed-size data packets at said second data rate and transferring said fixed-size data packets to said N output buffers at said second data rate, where the second data rate is not the first data rate at which the "packets are input and output."

The Examiner responds that "Krishna discloses inputting packets at a certain data rate (col. 8, lines 34-35) and unloading packets onto output data links according to the speed of those output data links (col. 8, lines 10-15)." To clarify the record for appeal, these passages teach:

For example, if packets arrive at the network device on input data links at a certain data rate, and the arbiter can control the switch fabric according to the arbitration algorithm to transfer cells for packets at twice that data rate, then the switch fabric is said to have a speedup of two. *Col. 8, lines 34—38.*

The cells remain queued in the output port queues 65 while the network device 49 re-assembles them into packets and unloads the packets onto the respective output data links 62, 63 and 64, according to the speed of those output data links. In this general

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manner, packets are switched between input and output ports. *Col*
8, lines 10—15).

Contrary to the Examiner's assertions, nothing at all in Krishna teaches or suggests that the "certain data rate" of the input data links is related at all to the "speed of the output data links". Certainly there is no teaching or suggestion that they are the same speed, and in fact, the clear implication of the combination of the cited passages is that these are two different rates.

The Examiner makes an argument for ignoring carious limitations that include the term "capable of" by reference to various sections of the MPEP that do not even address this specific phrase. The Examiner's argument appears to be a misapplication of the decision in *In re Hutchison*, 154 F.2d 135 (CCPA 1946). In *Hutchinson*, the court did not consider the preamble phrase "adapted for use in the fabrication of a metal template or the like" to "constitute a limitation in any patentable sense." In contrast, the "capable of" limitation in the present application imposes a capability requirement on the input buffers, output buffers, and interconnecting network. The Examiner is invited to consider the non-precedential BPAI decision in *Ex parte Prall*, Appeal No. 2003-1556, which may be found at www.uspto.gov/web/offices/dcom/bpai/decisions/fd031556.pdf. While the limitation at issue in *Hutchinson* was in the preamble and merely recited an intended use, the limitation at issue in *Prall* imposed a capability requirement on the respective claim element — like that in the current application.

Moreover, the determination of whether clauses such as "adapted to/for," or "wherein/whereby" are a limitation in a claim is not subject to a per se rule, but instead depends on the specific facts of the case. MPEP § 2111.04, page 2100-46 (8th ed., rev. 5, August 2006).

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When such a clause states a condition that is material to patentability, the clause cannot be ignored in order to change the substance of the invention. *Id.*

The Examiner has failed to show that the claim limitations are taught by Krishna, and has similarly failed to show any motivation at all to make the specific modification to Krishna that is necessary to meet the claim limitations. The motivation to combine or modify must be specific to the actual teachings sought to be combined. "In holding an invention obvious in view of a combination of references, there must be some suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to select the references and combine them in the way that would produce the claimed invention." (*Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1385 (Fed. Cir. 2001) emphasis added). "When the references are in the same field as that of the applicant's invention, knowledge thereof is presumed. However, the test of whether it would have been obvious to select specific teachings and combine them as did the applicant must still be met by identification of some suggestion, teaching, or motivation in the prior art, arising from what the prior art would have taught a person of ordinary skill in the field of the invention." (*In re Dance*, 160 F.3d 1339, 1343 (Fed. Cir. 1998), emphasis added).

Further, independent Claims 1, 4, 7, and 14 include "a bufferless, non-blocking interconnecting network." The Examiner expressly and repeatedly stated, in the Office Action mailed October 5, 2005, that "Krishna fails to explicitly disclose a bufferless interconnecting network" (Page 3, first full paragraph, and page 4, first full paragraph, 10/05/05 Office Action). Applicant agreed. The Examiner now contradicts her previous statements, and alleges that Krishna now teaches a bufferless interconnecting network.

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As such, independent Claims 1, 4, 7, and 14 distinguish over all art of record, so all dependent claims must, also, and all claims should be allowed.

Prompt reconsideration and allowance is respectfully requested.

II. CONCLUSION

The Applicant respectfully asserts that all pending claims in this application are in condition for allowance and respectfully requests full allowance of the claims.

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SUMMARY

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at wmunck@munckbutrus.com.


The Commissioner is hereby authorized to charge any fees connected with this communication (including any extension of time fees) or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

MUNCK BUTRUS P.C.

Date:

Nov 20, 2006



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